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Agency Secretary
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Department of Toxic Substances Control

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Arnold Schwarzenegger
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March 10, 2006

Mr. Michael O'Brien
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Beale Air Force Base, California 95903-1708

CONCURRENCE ON FINAL CONCEPTUAL DESIGN (CD) WORKPLAN FOR SITE 13,
FORMER LANDFILL NO. 1, BEALE AIR FORCE BASE (AFB),
YUBA COUNTY, CALIFORNIA

Dear Mr. O'Brien:

The Department of Toxic Substances Control (DTSC) has reviewed and concurs with the subject document (Final CD Workplan), dated July 7, 2004. DTSC provided comments on the Draft CD Workplan, dated March 3, 2004, via e-mail on June 20, 2004. Site 13 is the Former Landfill No. 1, and has soil contaminated with Volatile Organic Compounds (VOCs), Total Petroleum Hydrocarbons (TPH), dioxins, metals; and groundwater contaminated with VOCs. The most notable VOC contamination is Trichloroethene (TCE), while the most notable metal contamination is lead.

The Final CD Workplan contains a summary of the proposed remedy and basis of design, hydrogeologic monitoring results, request for biological opinion, groundwater model, cost estimate, design specifications, design drawings, construction quality assurance plan for soil cover, and analytical results from stockpiled soil. The remainder of this letter briefly provides background and summarizes the proposed remedy and basis of design components.

BACKGROUND

The Land Use Control (LUC) portion of the Site 13 remedy also applies to the contiguous Sites: WP-02 (Site 2); the former photographic wastewater treatment plant located slightly northeast of Site 13, pipeline portions of Site DP-19 (Site 19); the

photowaste emergency holding basin, Site WP-20 (Site 20); an unlined grease pit northwest of the wastewater treatment plant, and Area of Concern 26 (AOC 26); two former World War II disposal areas located southwest and northeast of the wastewater treatment plant.

REMEDY DESIGN

The remedy design is summarized as follows:

1. Landfill Soils – Soil Cover, Vapor Extraction, and LUC

Approximately eight acres of the former landfill will be covered with at least four feet of clean fill, provided by excavating portions of nearby Pond No. 4 and using nearly 1000 cubic yards of soil stockpiled north of the landfill. The depth of the soil cover is to prevent human and eco-receptor exposure to contaminated soil and prevent potential impacts to groundwater. The cover will be vegetated and will include run-off control. A post-construction Operation and Maintenance Plan will be developed. The unimproved haul roads, landfill and remote areas, and stream banks will be revegetated with native plants.

The Site 13 West Soil Vapor Extraction (SVE) System will be optimized for VOC and TPH remediation. The Site 13 East SVE System has been shut down; however, field monitoring will be continued to monitor the effectiveness of monitored natural attenuation of TPH.

LUC will be placed in the Base Master Plan to protect the integrity of the soil cover, prohibit residential use, and limit access of unauthorized personnel. The cap is not designed to support structures – if structures are considered in the future, the land use designation must be reviewed and the cap may need to be redesigned. A LUC Implementation Plan will be developed.

2. Pipeline Soils – Soil Cover

Approximately 0.7 acre of dioxin-contaminated soil along three remote areas of the former photowaste pipeline will be covered with two feet of clean soil to limit direct contact of human and eco-receptors. The soil will be vegetated and LUCs implemented.

3. Sludge Pond Soils – Land Use Controls

Dioxin-contaminated soil above residential but below commercial/industrial standards is located under the excavated unlined sludge ponds of the former photographic waste treatment plant. Eight feet of clean fill have previously been placed; therefore, the proposed action is limited to LUCs to prohibit residential use and invasive activities such as excavation, grading, and trenching.

4. Groundwater – Existing Pump and Treat (P&T) Enhancements

The existing Groundwater Treatability Test System (GTTS) consists of a P&T System containing 18 groundwater extraction wells connected to two air strippers via underground piping. Effluent is pumped to the aeration basin of the wastewater treatment plant. Modeling indicated that the average pumping rates in 2002 were sufficient to capture the TCE plume to the five microgram/liter (ug/l), Maximum Contaminant Level in the three uppermost hydrogeologic units; however, one additional extraction well in the southwest quadrant may be needed to ensure capture in the fourth (deepest) zone. The GTTS' performance was reviewed, need for enhancements evaluated, and groundwater modeling improved, leading to the following design:

- a. abandon 11 shallow wells;
- b. extend 22 monitoring and extraction wells to account for the soil cover;
- c. add two extraction and 12 monitoring wells;
- d. add a new central control building;
- e. add a new central control panel and interface system;
- f. remove the Site 13 West SVE System blower outside the cover footprint;
- g. reroute and increase capacity of piping; and
- h. increase capacity of electrical power distribution system to certain wells.

In addition, LUCs will be placed in the Base Master Plan to prevent exposure to contaminated groundwater.

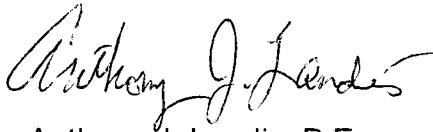
CONCLUSION

DTSC concurs with the Site 13 Final CD Workplan. Beale AFB has adequately addressed comments on the Draft CD Workplan through responses to comments, working meetings, and the Final CD Workplan. DTSC notes this design is being implemented in anticipation of an approved Record of Decision.

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If you have any questions or concerns regarding this letter, please contact Mr. Terry Escarda, of my staff, at (916) 255-3714, or via e-mail at tescarda@dtsc.ca.gov.

Sincerely,

A handwritten signature in cursive script, reading "Anthony J. Landis".

Anthony J. Landis, P.E.
Chief
Northern California Operations
Office of Military Facilities

cc: Mr. Robert Reeves
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